

**IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF TEXAS  
WACO DIVISION**

LED WAFER SOLUTIONS LLC,

Plaintiff,

v.

SAMSUNG ELECTRONICS CO., LTD.,  
SAMSUNG ELECTRONICS AMERICA,  
INC.,

Defendants,

and

SEOUL SEMICONDUCTOR CO., LTD.,

Intervenor-Defendant.

Civil Action No. 6:21-cv-00292-ADA

**JURY TRIAL DEMANDED**

**JOINT CLAIM CONSTRUCTION STATEMENT**

Pursuant to the Third Amended Scheduling Order (D.I. 57), Plaintiff LED Wafer Solutions LLC, Defendants Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. (“Samsung”), and Intervenor-Defendant Seoul Semiconductor Co., Ltd. (“Seoul Semiconductor”) (together with Samsung, “Defendants”), respectfully submit this Joint Claim Construction Statement. All references to claims and citations refer to the four asserted patents in the case: U.S. Patent Nos. 8,941,137 (the “’137 Patent”), 8,952,405 (the “’405 Patent”), 9,502,612 (the “’612 Patent”), and 9,786,822 (the “’822 Patent”).

## I. AGREED TERMS

Claim Term	Agreed Construction
“carrier layer”  (’822 Patent, claim 1)  Proposed by Plaintiff	Plain and ordinary meaning

## II. DISPUTED CLAIM TERMS

Claim Term	Plaintiff’s Construction	Defendants’ Construction
“optically definable material”  (’137 Patent, claim 1; ,’405 Patent, claim 1)  Proposed by Plaintiff	“a material within or adjacent to the optically permissive layer that changes an optical characteristic of emitted light”	Plain and ordinary meaning
“covering at least a portion of the above components”  (’137 Patent, claim 1)  Proposed by Seoul Semiconductor	“covering at least a portion of at least one of the semiconductor LED, the conducting support layer, optically permissive layer, and optically definable material to protect the LED from degrading properties (e.g. moisture)”	“covering at least a portion of each of the semiconductor LED, the conducting support layer, the optically permissive layer, and the optically definable material”
“covering at least a portion of the above components”  (’405 Patent, claim 1)  Proposed by Seoul Semiconductor		“covering at least a portion of each of the semiconductor LED, the electrically conducting metallization layer, the sapphire layer, and the optically permissive layer”

<b>Claim Term</b>	<b>Plaintiff's Construction</b>	<b>Defendants' Construction</b>
<p>“said shaped edge configured to reflect light generated by said light emitting device outwardly therefrom”</p> <p>(’137 Patent, claim 4; ’405 Patent, claim 4)</p> <p>Proposed by Seoul Semiconductor</p>	<p>Plain and ordinary meaning</p>	<p>“therefrom” refers to the “shaped edge”</p>
<p>“a required position of said device with respect to said optically permissive [flat] cover substrate”</p> <p>(’137 Patent, claim 6; ’405 Patent, claim 7)</p> <p>Proposed by Samsung</p>	<p>“align the light emitting device with an optically permissive cover substrate to protect one or more components of the light emitting device”</p>	<p>Indefinite</p>
<p>“lifting off said substrate from said LED; forming a metal pad on the newly exposed LED surface”</p> <p>(’137 Patent, claim 9)</p> <p>Proposed by Samsung</p>	<p>Plain and ordinary meaning</p> <p>In the alternative, “separating LED from substrate and forming a metal pad on newly exposed surface.”</p>	<p>“newly exposed LED surface” means the LED surface exposed by “lifting off said substrate from said LED.”</p> <p>Step 9[d] (“lifting off said substrate from said LED”) must precede step 9[e] (“forming a metal pad on the newly exposed LED surface”).</p>
<p>“an electrically conducting metallization layer in direct contact with at least a portion of each of a positively-doped surface and said negatively-doped surface of said semiconductor LED”</p> <p>(’405 Patent, claim 1)</p> <p>Proposed by Samsung</p>	<p>Plain and ordinary meaning</p>	<p>“the same electrically conducting metallization layer in direct contact with at least a portion of each of a positively-doped surface and said negatively-doped surface of said semiconductor LED”</p>

Claim Term	Plaintiff's Construction	Defendants' Construction
<p>“depositing a metallization layer on a positively-doped surface of said positively-doped layer and said negatively-doped surface of said negatively-doped layer to provide electrical contact with said positively-doped layer and said negatively-doped layer of said LED”</p> <p>(’405 Patent, claim 12)</p> <p>Proposed by Samsung</p>	<p>Plain and ordinary meaning</p>	<p>“depositing the same metallization layer on a positively-doped surface of said positively-doped layer and said negatively-doped surface of said negatively-doped layer to provide electrical contact with said positively-doped layer and said negatively-doped layer of said LED”</p>
<p>“wherein said intrinsic layer is between said positively-doped layer and a first surface of said LED is in direct contact with a sapphire layer”</p> <p>(’405 Patent, claim 12)</p> <p>Proposed by Samsung</p>	<p>Plain and ordinary meaning</p>	<p>Indefinite</p>

Claim Term	Plaintiff's Construction	Defendants' Construction
<p>12[c]: “depositing a metallization layer . . .”</p> <p>12[e]: “depositing a passivation layer in direct contact with said metallization layer . . .”</p> <p>12[f]: “defining a first contact hole in said passivation layer to expose a first portion of an upper metal surface of said metallization layer disposed on said negatively-doped surface wherein said passivation layer is in direct contact with a second portion of said upper metal surface of said metallization layer disposed on said negatively-doped surface;”</p> <p>12[g]: “defining a second contact hole in said passivation layer to expose a first portion of a lower metal surface of said metallization layer disposed on said positively-doped surface wherein said passivation layer is in direct contact with a second portion of said lower metal surface of said metallization layer disposed on said positively-doped surface”</p> <p>(’405 Patent, claim 12)</p> <p>Proposed by Samsung</p>	<p>No construction necessary</p>	<p>step 12[c] must precede step 12[e];</p> <p>step 12[e] must precede step 12[f]; and</p> <p>step 12[e] must precede step 12[g]</p>

<b>Claim Term</b>	<b>Plaintiff's Construction</b>	<b>Defendants' Construction</b>
<p>“thermally conductive layer”</p> <p>(’612 Patent, claims 1, 9)</p> <p>Proposed by Plaintiff</p>	<p>“a layer of metal or an organic material with a physical property of high thermal conductivity”</p>	<p>Plain and ordinary meaning</p>
<p>“relief”</p> <p>(’612 Patent, claim 1)</p> <p>Proposed by Samsung</p>	<p>“thermally conducting hole”</p>	<p>“hole”</p>
<p>“has the property of high thermal conductivity”</p> <p>(’612 Patent, claim 4)</p> <p>Proposed by Samsung</p>	<p>Plain and ordinary meaning</p>	<p>Indefinite</p>
<p>“electrical contact in electrical communication with said first surface of said semiconductor LED”</p> <p>(’822 Patent, claim 1)</p> <p>Proposed by Seoul Semiconductor</p>	<p>Plain and ordinary meaning</p>	<p>“electrical contact that is in a conduction path with the first surface of the semiconductor LED”</p>

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**CERTIFICATE OF SERVICE**

I hereby certify that on this 21st day of February, 2022, a copy of the foregoing document was served on all counsel of record via the Court's ECF system.

Dated: February 21, 2022

/s/ Bradley D. Liddle